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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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WHITAKER, CHALK, SWINDLE & SAWYER, LLP
3500 CITY CENTER TOWER II
301 COMMERCE STREET
FORT WORTH, TX 76102-4186

EXAMINER	
STAICOVICI, STEFAN	
ART UNIT	**PAPER NUMBER**
1732	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/784,431	CORBETT, BRADFORD G.	
	Examiner	Art Unit	
	Stefan Staicovici	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed July 20, 2006 has been entered. Claims 1 and 6 are pending in the instant application.

Terminal Disclaimer

2. The terminal disclaimers filed on June 27, 2006 disclaiming the terminal portion of any patent granted on this application that would extend beyond the expiration date of US Patent Nos. 6,328,309 and 6,676,886 and, US Application Serial Nos. 10/776,842 and 10/715,091 have been reviewed and are accepted. The terminal disclaimers have been recorded.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 6, the newly added limitation of applying the coating to "entire exterior surface of the gasket" does not appear to have support in the original disclosure. Although the original

disclosure appears to have support for applying he coating "to at least selected portions of the circumferential area" (see page 4, lines 25-26 and Figure 2), the original disclosure does not appear to have support for the broader recitation of applying the coating to "entire exterior surface of the gasket."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corbett, Jr. (US Patent No. 6,328,309 B1) in view of Ulschmid *et al.* (US Patent No. 5,361,567) and in further view of JP 2001-182837.

Corbett, Jr. ('309) teaches the basic claimed process of installing a gasket in a socket end of a thermoplastic pipe which is used to form a pipe coupling including, providing a mandrel with an inner end and an outer end and having a generally cylindrical outer working surface; installing a gasket at a first circumferential position on the outer working surface, the gasket having at least selected surfaces coated with a spray-on anti-friction coating wherein the spray-on anti-friction coating is applied by spraying on a dry powder followed by heating the powder to cause it to be fixed; providing a retention member at a second circumferential location on the mandrel nearer the inner end of the mandrel, the retention member abutting the gasket in a

normally extended position but being retractable to a retracted position in a subsequent manufacturing step; heating a socket end of the thermoplastic pipe; forcing the heated socket end of the thermoplastic pipe over the working surface of the mandrel and over the gasket with the retention member being in the extended position, whereby the heated socket end of the thermoplastic pipe flows over the gasket to form a retention groove for retaining the gasket and again contacts the working surface of the mandrel; cooling the heated socket end of the thermoplastic pipe; retracting the cooled socket end of the thermoplastic pipe and the retained gasket from the working surface of the mandrel (see claim 1 of Corbett, Jr. ('309)). Further, Corbett, Jr. ('309) teaches that said sprayed anti-friction coating is polytetrafluoroethylene (Teflon^{TM}) or nylon (see col. 3, lines 55-60).

Regarding claim 1, although Corbett, Jr. ('309) teaches a sprayed nylon coating, Corbett, Jr. ('309) does not teach dipping a specific type of nylon. However, Nylon 6 and Nylon 12 materials, specifically RILSAN, are well known nylon materials that are either sprayed or dipped as anti-friction coatings as evidenced by Ulschmid *et al.* ('567) who teach the use of RILSAN nylon coating as an anti-friction coating that is either sprayed, dipped or applied as a powder (see col. 6, lines 17-30). Therefore, it would have been obvious for one of ordinary skill in the art to have dipped a RILSAN, nylon coating as taught by Ulschmid *et al.* ('567) in the gasket of the process of Corbett, Jr. ('309) because, Ulschmid *et al.* ('567) specifically teach that spraying and dipping are equivalent alternatives and that RILSAN nylon coating provides for an improved anti-friction coating, hence providing for an improved product and also because, Corbett, Jr.

('309) teaches a nylon coating, hence suggesting the RILSAN nylon coating of Ulschmid *et al.* ('567). It is submitted that RILSAN nylon is a Nylon 6, Nylon 11 or Nylon 12.

Further regarding claim 1, although Corbett, Jr. ('309) in view Ulschmid *et al.* ('567) teach a nylon-coated elastomeric gasket, Corbett, Jr. ('309) in view Ulschmid *et al.* ('567) do not teach a nylon coating that is effective to provide oil resistance which is at least as that of nitrile rubber (NBR). However, the use of a nylon coating on a rubber gasket to provide oil and heat resistance is well known as evidenced by JP 2001-182837 who teach using an NBR gasket having a nylon covering to provide improved resistance, including heat, oil and bending resistance. Because a nylon coating is provided on a NBR rubber base in the gasket of JP 2001-182837, it is submitted that the nylon coating has oil resistance at least as that of the NBR base in order for the gasket of JP 2001-182837 to function as described. Further, it is submitted that the price of a nylon-coated nitrile rubber gasket is less than that of nitrile rubber gasket. Therefore, in view of the teachings of JP 2001-182837 that a nylon-coated gasket provides for improved resistance, including oil resistance, as to a nitrile rubber gasket, it would have been obvious for one of ordinary skill to provide a nylon (RILSAN) coating by dipping, as taught by Ulschmid *et al.* ('567), of the elastomeric gasket in the process of Corbett, Jr. ('309) because, (1) Ulschmid *et al.* ('567) specifically teach that spraying and dipping are equivalent alternatives and that a nylon (RILSAN) coating provides for an improved anti-friction coating, hence providing for an improved product, (2) Corbett, Jr. ('309) teaches a nylon coating, hence suggesting the nylon (RILSAN) coating of Ulschmid *et al.* ('567) and, (3) JP 2001-182837 specifically teaches that a

nylon-coated gasket provides for improved resistance, including oil resistance as to a nitrile rubber gasket, hence providing for an improved gasket and process.

In regard to claim 6, Corbett, Jr. ('309) teaches that the gasket is an elastomeric, ring shaped member having a circumferential contact area and an exterior surface, and wherein the anti-friction coating is applied to *at least* selected portions of the circumferential contact area (see claim 7 of Corbett, Jr. ('309)) (emphasis added). Therefore, it is submitted that the language of "*at least* selected portions" (emphasis added) suggests that Corbett, Jr. ('309) teaches at most that the "entire exterior surface of the gasket" includes a nylon coating. Furthermore, JP 2001-182837 specifically teaches using a completely nylon-coated NBR gasket to provide improved resistance, including heat, oil and bending resistance. Therefore, in view of the teachings of JP 2001-182837 that a nylon-coated gasket provides improved resistance, it would have been obvious for one of ordinary skill to provide a nylon (RILSAN) coating to completely cover the gasket by dipping, as taught by Ulschmid *et al.* ('567), of the elastomeric gasket in the process of Corbett, Jr. ('309) because, (1) JP 2001-182837 specifically teaches that a nylon-coated gasket provides for improved resistance, including oil resistance, as compared to a nitrile rubber gasket, hence providing for an improved gasket and, (2) the language of "*at least* selected portions" (emphasis added) of Corbett, Jr. ('309) suggests that at most the "entire exterior surface of the gasket" includes a nylon coating, hence suggesting the completely nylon-coated gasket of JP 2001-182837.

7. Claims 1 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corbett, Jr. (US Patent No. 6,676,886 B2) in view of Corbett, Jr. (US Patent No. 6,328,309 B1) and in further view of Ulschmid *et al.* (US Patent No. 5,361,567) and JP 2001-182837.

Corbett, Jr. ('886) teaches the basic claimed process of installing a gasket in a socket end of a molecularly oriented thermoplastic pipe which is used to form a pipe coupling including, providing a mandrel with an inner end and an outer end and having an outer working surface; installing a gasket at a first circumferential position on the outer working surface; providing a backup collar at a second circumferential location on the mandrel, the backup collar having an exposed lip portion which abuts the gasket at an acute angle with respect to the outer working surface of the mandrel; heating a socket end of the thermoplastic pipe; forcing the heated socket end of the thermoplastic pipe over the working surface of the mandrel and over the gasket and backup collar, whereby the heated socket end of the thermoplastic pipe flows over the gasket to form a retention groove for retaining the gasket; retracting the backup collar; cooling the heated socket end of the thermoplastic pipe; retracting the cooled socket end of the thermoplastic pipe and the retained gasket from the working surface of the mandrel; wherein the gasket is an elastomeric, ring shaped member having a circumferential contact area and an exterior surface, the exterior surface forming a sloped contact area for contacting the lip portion of the backup collar in complimentary fashion; wherein the sloped contact area of the gasket exterior surface also forms an acute angle with respect to the working surface of the mandrel; wherein the complimentary acute angles of the backup collar and gasket form a wedge shaped contact area which serves to retain the gasket in its initial circumferential position on the working surface of

the mandrel as the heated pipe is forced over the mandrel and gasket; the wedge shaped contact area exerting both a longitudinal restraining force along the pipe longitudinal axis and a radial restraining force which is perpendicular to the pipe longitudinal axis to force the gasket radially inward in the direction of the mandrel as the pipe is pushed over the mandrel.

Regarding claim 1, Corbett, Jr. ('886) does not teach spraying an anti-friction coating. Corbett, Jr. ('309) teaches spraying a nylon or a Teflon™ anti-friction coating onto the gasket (see col. 3, lines 55-60). Therefore, it would have been obvious for one of ordinary skill in the art to have sprayed a nylon anti-friction coating as taught by Corbett, Jr. ('309) to the elastomeric gasket in the process of Corbett, Jr. ('886) because Corbett, Jr. ('309) specifically teaches that an anti-friction coating provides for an improved installation process by reducing the required insertion force for the male, spigot end when entering the female, spigot end and also because both references solve similar problems.

Further regarding claim 1, although Corbett, Jr. ('886) in view of Corbett, Jr. ('309) teaches a nylon coating, Corbett, Jr. ('886) in view of Corbett, Jr. ('309) does not teach dipping a specific type of nylon. However, Nylon 6 and Nylon 12 materials, specifically RILSAN, are well known nylon materials that are either sprayed or dipped as anti-friction coatings as evidenced by Ulschmid *et al.* ('567) who teach the use of a nylon (RILSAN) coating as an anti-friction coating that is either sprayed, dipped or applied as a powder (see col. 6, lines 17-30). Therefore, it would have been obvious for one of ordinary skill in the art to have provided a nylon (RILSAN) coating by dipping, as taught by Ulschmid *et al.* ('567), of the elastomeric gasket in the process of Corbett, Jr. ('886) in view of Corbett, Jr. ('309) because, Ulschmid *et al.* ('567) specifically

teach that spraying and dipping are equivalent alternatives and that, a nylon (RILSAN) coating provides for an improved anti-friction coating, hence providing for an improved product and also because, Corbett, Jr. ('886) in view of Corbett, Jr. ('309) teaches a nylon coating, hence suggesting the RILSAN nylon coating of Ulschmid *et al.* ('567). It is submitted that RILSAN nylon is a Nylon 6, Nylon 11 or Nylon 12.

Further regarding claim 1, although Corbett, Jr. ('886) in view of Corbett, Jr. ('309) and in further view Ulschmid *et al.* ('567) teach a nylon-coated elastomeric gasket, Corbett, Jr. ('886) in view of Corbett, Jr. ('309) and in further view Ulschmid *et al.* ('567) do not teach a nylon coating that is effective to provide oil resistance which is at least as that of nitrile rubber (NBR). However, the use of a nylon coating on a rubber gasket to provide oil and heat resistance is well known as evidenced by JP 2001-182837 who teach using an NBR gasket having a nylon covering to provide improved resistance, including heat, oil and bending resistance. Because a nylon coating is provided on a NBR rubber base in the gasket of JP 2001-182837, it is submitted that the nylon coating has oil resistance at least as that of the NBR base in order for the gasket of JP 2001-182837 to function as described. Further, it is submitted that the price of a nylon-coated nitrile rubber gasket is less than that of nitrile rubber gasket. Therefore, in view of the teachings of JP 2001-182837 that a nylon-coated gasket provides for improved resistance, including oil resistance, as to a nitrile rubber gasket, it would have been obvious for one of ordinary skill to have provided a nylon (RILSAN) coating by dipping, as taught by Ulschmid *et al.* ('567), of the elastomeric gasket in the process of Corbett, Jr. ('886) in view of Corbett, Jr. ('309) because, (1) Ulschmid *et al.* ('567) specifically teach that spraying and dipping are equivalent alternatives and

that a nylon (RILSAN) coating provides for an improved anti-friction coating, hence providing for an improved product, (2) Corbett, Jr. ('886) in view of Corbett, Jr. ('309) teaches a nylon coating, hence suggesting the nylon (RILSAN) coating of Ulschmid *et al.* ('567) and, (3) JP 2001-182837 specifically teaches that a nylon-coated gasket provides for improved resistance, including oil resistance as to a nitrile rubber gasket, hence providing for an improved gasket and process.

In regard to claim 6, Corbett, Jr. ('886) teaches that the gasket is an elastomeric, ring shaped member having a circumferential contact area and an exterior surface, and wherein the anti-friction coating is applied to *at least* selected portions of the circumferential contact area. Therefore, it is submitted that the language of "*at least* selected portions" (emphasis added) suggests that Corbett, Jr. ('886) teaches at most that the "entire exterior surface of the gasket" includes a nylon coating. Furthermore, JP 2001-182837 specifically teaches using an NBR gasket having a completely nylon covering to provide improved resistance, including heat, oil and bending resistance. Therefore, in view of the teachings of JP 2001-182837 that a completely nylon-coated gasket provides for improved resistance, it would have been obvious for one of ordinary skill to provide a nylon (RILSAN) coating by dipping, as taught by Ulschmid *et al.* ('567), to completely cover the elastomeric gasket in the process of Corbett, Jr. ('886) in view of Corbett, Jr. ('309) because, (1) JP 2001-182837 specifically teaches that a nylon-coated gasket provides for improved resistance, including oil resistance, as compared to a nitrile rubber gasket, hence providing for an improved gasket and, (2) the language of "*at least* selected portions" (emphasis added) of Corbett, Jr. ('886) in view of Corbett, Jr. ('309) suggests that at most the

"entire exterior surface of the gasket" includes a nylon coating, hence suggesting the completely nylon-coated gasket of JP 2001-182837.

Response to Arguments

8. Applicant's remarks filed July 20, 2006 have been considered.

9. Applicant argues that the prior art of record does not teach or suggest a "gasket coating [that] is effective to provide oil resistance which is at least that of nitrile rubber at a fraction of the cost of a nitrile rubber gasket" (see page 6 of the amendment file 7/20/2006). In response, it is noted that this argument is drawn to a newly presented claim limitation that has been rejected in this Office Action as set forth above. Further, it is noted that whether "a combination would not be made by businessmen for economic reasons does not mean that a person of ordinary skill in the art would not make the combination because of some technological incompatibility. See MPEP §2145(VII), citing, In re Farrenkopf, 713 F.2d 714, 219 USPQ 1 (Fed. Cir. 1983).

10. Applicant argues that contrary to the prior art of record, the instant application is not drawn to a coating for "reducing insertion forces." (see page 6 of the amendment file 7/20/2006). However, in MPEP §2145(VII) it is stated that, "[i]t is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant." See In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972).

11. In response to applicant's argument that there is no suggestion to combine the references (see page 7 of the amendment file 7/20/2006), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed

invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the primary reference of Corbett, Jr. ('309) or Corbett, Jr. ('886) in view of Corbett, Jr. ('309) teach a nylon coated gasket. The secondary reference of Ulschmid *et al.* ('567) teach the use of nylon (RILSAN) coating as an anti-friction coating that is either sprayed, dipped or applied as a powder (see col. 6, lines 17-30). Therefore, it would have been obvious for one of ordinary skill in the art to provide a nylon (RILSAN) coating by dipping, as taught by Ulschmid *et al.* ('567), of the elastomeric gasket in the process of Corbett, Jr. ('309) or Corbett, Jr. ('886) in view of Corbett, Jr. ('309) because, Ulschmid *et al.* ('567) specifically teach that spraying and dipping are equivalent alternatives and that a nylon (RILSAN) coating provides for an improved anti-friction coating, hence providing for an improved product and also because, Corbett, Jr. ('309) or Corbett, Jr. ('886) in view of Corbett, Jr. ('309) teaches a nylon coating, hence suggesting the nylon (RILSAN) coating of Ulschmid *et al.* ('567). Furthermore, because Corbett, Jr. ('309), Corbett, Jr. ('886) in view of Corbett, Jr. ('309) and Ulschmid *et al.* ('567) all teach a nylon-coated gasket, then it is submitted that a reasonable expectation of success has been shown.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (571) 272-1208. The examiner can normally be reached on Monday-Friday 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson, can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stefan Staicovici, PhD

Primary Examiner 9/15/06

AU 1732

September 15, 2006